

**Notice of Allowability**

Application No.

09/415,920

Examiner

Ryan R Yang

Applicant(s)

NAGOSHI ET AL.

Art Unit

2672

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 8/13/2004.
2. ☒ The allowed claim(s) is/are 15,17-23 and 28-38.
3. ☒ The drawings filed on 12 October 1999 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 11/12/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**MICHAEL RAZAVI**  
SUPERVISORY PATENT EXAMINER

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/13/2004 has been entered.

**EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE**

2. The following is an examiner's statement of reasons for allowance:

As per claims 15, 28 and 38, the closest prior art by Fukuda et al. do not explicitly disclose in a trace mark method or apparatus having a trace mark drawing means "extending only a top Position of said trace mark when said present position of said object is located less than a predetermined-value apart from the ton position of a drawn trace mark, each polygon constituting a trace mark being continuously adjacent to each other"

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

As per claim 19, the closest prior art by Fukuda et al. do not explicitly disclose in a trace mark drawing means which "extending only a top position of said trace mark

when said present position of said object is located less than a predetermined-value apart from the top position of a drawn trace mark, and said trace mark drawing means moves, by said predetermined value, said trace mark in its entirety toward the present position of said object when the present position of said object is located not less than said predetermined value apart from the top position of the drawn trace mark”.

As per claim 23, the closest prior art by Fukuda et al. do not explicitly disclose “a cyclic register for retaining positions of respective portions of the trace mark, which consists of said plurality of portions, in a plurality of storage regions which respectively relate to the respective portions of the trace mark; and mark top position indicating means for indicating a storage region of the cyclic register, which corresponds to a top position of the trace mark”.

As per claim 29, the closest prior art by Fukuda et al. do not explicitly disclose “first display means for processing and displaying said trace mark according to the movements of said object; first storage means for storing the trace marks which have been generated up to present including said past trace mark; sorting means for sorting the trace mark which is stored in the first storage means; and second display means for processing and displaying said trace mark on a basis of the sorting result of the sorting means”.

As per claim 33, the closest prior art by Fukuda et al. do not explicitly disclose “judging means for judging a display value of said trace mark; sorting means for sorting said trace mark on the basis of the judging result of the judging means; and memory

means for storing only predetermined number of the trace marks from a one which has high priority according to a sorting result of the sorting means".

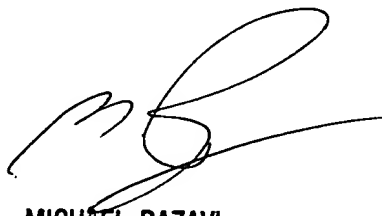
### ***Inquiries***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan R Yang whose telephone number is (703) 308-6133. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan Yang  
December 9, 2004



**MICHAEL RAZAVI**  
**SUPERVISORY PATENT EXAMINER**  
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